

We Claim:

1. Apparatus for fluidly flushing the internal cavities of a plurality of parts, comprising:

a fixture for holding a plurality of parts in spaced side-by-side relationship in a first plane, with each part having a plurality of spaced apart cavities aligned in a plane other than said first plane;

a guide member disposed adjacent said fixture and having a plurality of passages formed therein including adjacent passages that are in a common plane parallel to said first plane and including adjacent passages that are in a common plane other than said first plane and wherein each of said passages is axially aligned in coincidence with one of said part cavities;

a manifold having a plurality of probe tubes extending therefrom with each of said passages being axially aligned with one of said plurality of probe tubes, said manifold also having a fluid source connected thereto for providing pressurized fluid flow through each of said probe tubes so as to be discharged from the respective ends thereof; and

means for advancing said manifold toward said guide member such that each of said probe tubes passes through a respective passage and into a respective cavity for flushing internal surfaces thereof.

2. Apparatus as set forth in claim 1 wherein said first plane is substantially normal to said plane other than said first plane.

3. Apparatus as set forth in claim 1 wherein said guide member is integrally formed with said fixture.

4. Apparatus as set forth in claim 1 wherein some of said probe tubes are of different lengths.

5. Apparatus as set forth in claim 4 wherein, within the same part, the probe tubes being advanced therein are of different lengths.

6. Apparatus as set forth in claim 1 wherein said means for advancing said manifold also includes means for retracting said manifold when the flushing has been completed.

7. Apparatus as set forth in claim 1 and including a means for removing the said fixture and replacing it with another fixture.

8. Apparatus as set forth in claim 7 wherein said removing means is operative to remove said fixture along said first plane.

9. The apparatus as set forth in claim 1, wherein said parts are gas turbine engine parts.

10. The apparatus as set forth in claim 9, wherein said gas turbine engine parts comprise turbine blades.

11. A method of simultaneously flushing a plurality of cavities in a plurality of parts comprising the steps of:

installing a plurality of parts into a holder in spaced apart relationship in a first plane, with each part having at least a pair of openings and associated internal cavities spaced apart in a plane other than said first plane;

providing a guide member near said part openings said guide member having a plurality of passages formed therein, including adjacent passages that are in a common plane parallel to said first plane and including adjacent passages that are in a common plane other than said first plane and wherein each of said passages has an axis aligned in coincidence with a respective part opening;

providing a manifold opposite said holder member with said manifold having a source of high pressure fluid connected thereto and having a plurality of probes extending therefrom with each of said passages having an axis aligned coincident with a respective probe tube axis;

advancing said manifold and said plurality of tubular probes along the axes of said probes such that said probes pass through the respective passages and into respective internal cavities; and

causing high pressure fluid to flow through said probes and into said cavities to flush out any foreign matter that may reside on the inner surfaces thereof.

12. A method as set forth in claim 11 wherein said first plane is substantially normal to said plane other than said first plane.

13. A method as set forth in claim 11 wherein said guide member is integrally formed with said holder.

14. A method as set forth in claim 11 wherein some of said probes are of different lengths.

15. A method as set forth in claim 13 wherein, within the same part the tubular probes being advanced thereinto are of different lengths.

16. A method as set forth in claim 11 wherein said manifold advancing step also includes a further step of retracting said manifold when the flushing has been completed.

17. A method as set forth in claim 11 and including an additional step of removing said fixture and replacing it with another fixture.

18. A method as set forth in claim 17 wherein said removing step is accomplished by removing said holder along said first plane.

19. A method as set forth in claim 11, wherein said parts are gas turbine engine parts.

20. A method as set forth in claim 19, wherein said gas turbine engine parts comprise turbine blades.